

**Vapor Intrusion Chronology**  
**Former TRW Microwave Facility**  
**Sunnyvale, California**

<b>Date</b>	<b>Event</b>
October 2003	Initial indoor air sampling: six indoor air samples and one outdoor air sample were collected and results documented in a report prepared by Camp Dresser & McKee, Inc. (CDM 2004a).
March 2004	Northrop Grumman submitted a work plan (CDM 2004b) to install and operate a temporary mechanical ventilation system prior to collecting additional indoor air samples within the Site building.
April 2004	Subsequent to RWQCB approval (RWQCB 2004a), CDM installed and operated a temporary mechanical ventilation system within the Site building and collected indoor air samples prior to and following activation of the temporary system.
May 2004	Northrop Grumman submitted a <i>Report of Findings – Installation and Operation of a Temporary Mechanical Ventilation System and Indoor Air Sampling</i> report to the RWQCB (CDM 2004c).
July 2004	RWQCB requested that “if the Site building is not occupied by October 2004, another round of indoor air samples be collected without mechanical ventilation to determine if improvements in groundwater quality reduced vapor intrusion to a level that does not require further monitoring” (RWQCB 2004b).
September 2004	In response to the RWQCB request, Northrop Grumman submitted a work plan (CDM 2004d) to conduct an additional round of indoor air sampling without mechanical ventilation.
October 2004	Subsequent to RWQCB approval (RWQCB 2004c) of the work plan, Northrop Grumman conducted another round of indoor air sampling without a mechanical ventilation system in operation.
November 2004	Northrop Grumman submitted a <i>Report of Findings – October 2004 Indoor Air Sampling</i> report to the RWQCB (CDM 2004e).
December 2004	RWQCB approved the October 2004 Indoor Air Sampling Report (RWQCB 2004d).
April 2005	Northrop Grumman submitted a preliminary draft Risk Mitigation Plan (RMP) to the Water Board (CDM 2005).
December 2012	RWQCB (2012) issued the 6 December 2012 <i>Letter of Requirement for Vapor Intrusion Sampling and Analysis Work Plan and Report</i> .
October 2013	Northrop Grumman submitted a <i>Vapor Intrusion Evaluation Sampling and Analysis Work Plan</i> (AECOM, 2013).
December 2013	Subsequent to USEPA approval, Northrop Grumman performed the VI evaluation sampling event, including sub-slab, indoor air, and outdoor air.
February 2014	Northrop Grumman reported the results of the December 2013 sampling event in the <i>Vapor Intrusion Evaluation Report</i> (AECOM, 2014a) which recommended removing possible VI conduits, working with the property owner to ensure a mechanical ventilation system would be installed, and collect samples of indoor air prior to building occupancy to assess if VI risk sufficiently mitigated.

**Vapor Intrusion Chronology**  
**Former TRW Microwave Facility**  
**Sunnyvale, California**

<b>Date</b>	<b>Event</b>
August 2014	As a conservative, proactive measure and at request of the property owner, Northrop Grumman agreed to install a passive sub-slab vapor collection system, as documented in the <i>Passive Sub-Slab Vapor Collection System Installation Work Plan</i> (AECOM, 2014b).
August and September 2014	The passive sub-slab vapor collection system was installed.
October and November 2014	Northrop Grumman performed a targeted excavation of the source area and removed existing monitoring wells within the building to prevent them from serving as VI conduits, as described in the <i>Well Destruction and Source Removal Work Plan</i> (AECOM, 2014c).
January 2015	The building was inspected for potential VI conduits and any potential conduits were sealed.
May 2015	Northrop Grumman performed a VI evaluation which showed that VI did not present a human health risk to building occupants presented in the <i>Vapor Intrusion Evaluation Report</i> (AECOM, 2015).
December 2015	The building tenant performed an additional VI evaluation after tenant renovations to confirm that the renovations did not compromise the passive sub-slab vapor collection system presented in the <i>Vapor Intrusion Evaluation Report</i> (AECOM, 2016).